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| APPLICATION NO.           | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-------------|----------------------|---------------------|------------------|
| 10/725,312                | 12/02/2003  | Norihiro Yamamoto    | R2184.0283/P283     | 4926             |
| 24998                     | 7590        | 09/24/2007           |                     |                  |
| DICKSTEIN SHAPIRO LLP     |             |                      | EXAMINER            |                  |
| 1825 EYE STREET NW        |             |                      | CHOW, LIXI          |                  |
| Washington, DC 20006-5403 |             |                      |                     |                  |
|                           |             |                      | ART UNIT            | PAPER NUMBER     |
|                           |             |                      | 2627                |                  |
|                           |             |                      | MAIL DATE           | DELIVERY MODE    |
|                           |             |                      | 09/24/2007          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                                    |  |
|------------------------------|-------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/725,312 | Applicant(s)<br>YAMAMOTO, NORIHIRO |  |
|                              | Examiner<br>Lixi Chow         | Art Unit<br>2627                   |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5-7 and 10-25 is/are pending in the application.
- 4a) Of the above claim(s) 6,7,12 and 14-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,10,11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2, 3, 5, 10, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Salmonsens et al. (US 2002/0136121; hereafter Salmonsens).

Regarding claim 1:

Salmonsens discloses an optical data recording method, comprising the steps of:

interrupting an operation of recording data in an optical data recording medium when a predetermined amount of data is continuously recorded in the optical data recording medium by using a laser beam emitted from a laser (see paragraph [0019], lines 5-6);

measuring a recording state of the optical data recording medium immediately before the interruption (see paragraph [0019], lines 7-10);

correcting a recording power of the laser beam for a next recording operation in the optical data recording medium based on the measured recording state (see paragraph [0019], lines 10-11); and

starting the next recording operation by using the laser beam with the determined recording power in the optical data recording medium at a position immediately after the interruption (see paragraph [0019], lines 11-15),

wherein in the step of interrupting, the predetermined amount of data is determined so that a time period required for completing recording of the predetermined amount of data is shorter than a time period over which a recording quality degrades due to a rise of a temperature of the laser (see paragraph [0038]; the time period required for completing recording of the predetermined amount of data is always shorter than time period over which the recording quality degrades due to temperature, because Salmonsens performs periodic re-evaluation).

Regarding claim 3:

Salmonsens discloses an optical data recording method, comprising the steps of:

interrupting an operation of recording data in an optical data recording medium when a predetermined amount of data is continuously recorded in the optical data recording medium by using a laser beam emitted from a laser (see paragraph [0019], lines 5-6);

measuring a recording state of the optical data recording medium immediately before the interruption (see paragraph [0019], lines 7-10);

correcting a recording power of the laser beam for a next recording operation in the optical data recording medium based on the measured recording state (see paragraph [0019], lines 10-11); and

starting the next recording operation by using the laser beam with the determined recording power in the optical data recording medium at a position immediately after the interruption (see paragraph [0019], lines 11-15),

wherein in the step of interrupting, the predetermined amount of data is determined so that a length along a radial direction of the optical data recording medium covered by the predetermined amount of data is shorter than a length over which a recording quality degrades

due to a fluctuation of a sensitivity of a recording layer of the optical data recoding medium (see paragraph [0036]; also see paragraphs [0039] and [0041]; the optimum recording power greatly varies from the inside of the disk to the outside of the disk, and re-evaluation process is performed at various locations to compensate for the fluctuation of a sensitivity of the disk).

Regarding claim 5:

Salmonsens discloses an optical data recording method, comprising the steps of:

interrupting an operation of recording data in an optical data recording medium when a predetermined amount of data is continuously recorded in the optical data recording medium by using a laser beam emitted from a laser (see paragraph [0019], lines 5-6);

measuring a recording state of the optical data recording medium immediately before the interruption (see paragraph [0019], lines 7-10);

correcting a recording power of the laser beam for a next recording operation in the optical data recording medium based on the measured recording state (see paragraph [0019], lines 10-11); and

starting the next recording operation by using the laser beam with the determined recording power in the optical data recording medium at a position immediately after the interruption (see paragraph [0019], lines 11-15),

wherein in the step of correcting, a change of the recording power in each correction is restricted to be less than a predetermined value (see paragraphs [0054]-[0055], it is inherent that the change of the recording power is restricted to be less than a predetermined value, so that data can be recorded at highest quality).

Regarding claim 10:

Salmonsens discloses an optical data recording method, comprising the steps of:

interrupting an operation of recording data in an optical data recording medium when a predetermined amount of data is continuously recorded in the optical data recording medium by using a laser beam emitted from a laser (see paragraph [0019], lines 5-6);

measuring a recording state of the optical data recording medium immediately before the interruption to measure a recording quality (see paragraph [0019], lines 7-10);

correcting a recording power of the laser beam for a next recording operation in the optical data recording medium based on the measured recording quality (see paragraph [0019], lines 10-11); and

starting the next recording operation by using the laser beam with the determined recording power in the optical data recording medium at a position immediately after the interruption (see paragraph [0019], lines 11-15),

wherein in the step of measuring, the recording quality is measured in a seek operation performed when starting the next recording operation after the interrupted recording operation, a setting being made so that a reading quality is an optimum during the measurement of the recording quality, and the setting being made so that the recording quality is an optimum after the measurement of the recording quality (see paragraphs [0030], [0032] and [0045] and Fig. 4).

Regarding claim 11:

Salmonsens discloses the optical data recording method as claimed in claim 10, wherein in the step of measuring, an offset of a focus position of a focus servo is set so that the reading quality is an optimum during the measurement of the recording quality in the seek operation, and the offset of the focus position is set so that the recording quality is an optimum after the

measurement of the recording quality (see paragraph [0044]; since focus signal is being monitored during the recording, it is reasonable to conclude that this limitation is met).

Regarding claim 13:

Claim 13 recites similar limitations as in claims 8 and 11; hence claim 13 is rejected under the same reason set forth above.

### *Response to Arguments*

Applicant's arguments filed 7/05/07 have been fully considered but they are not persuasive.

In regards to claim 2, Applicant argues, "Salmonsens does not disclose a trigger based on an amount of data, that is, a predetermined amount of data of an amount such that a time period required for completing recording of the predetermined amount of data is shorter than a time period over which a recording quality degrades due to rise of a temperature of the laser". However, Examiner respectfully disagrees. Salmonsens performs periodic re-evaluation, which suggests that the time period of the continuous recording of a predetermined amount of data is always shorter than the time period over which a recording quality degrades due to rise of a temperature of the laser. One reason to perform the periodic re-evaluation is to prevent recording quality from degrading.

In regards to argument against claim 3, Examiner also disagrees with Applicant. Salmonsens acknowledges that optimum recording power varies along the radial direction of the optical disc, and optimum recording power changes according to the type of recording method, i.e., CLV or CAV (see par. [0041]). This implies that sensitivity of the recording layer fluctuates along the radial direction of the optical disc. Since Salmonsens uses the CAV/CLV drive method,

the length covered by the predetermined amount of data is always shorter than a length over which the recording quality degrades due to fluctuation of sensitivity of the disc.

Furthermore, the argument with regards to claim 5 is not persuasive, because Salmonsens discloses a strategy that adjust the laser power to bring the data closer to the ideal (see par. [0037]). Obviously the recording power is restricted to be less than a predetermined value in order for the data to be ideal.

Finally, Examiner respectfully disagrees with Applicant with regards to the argument against claims 10 and 13. The process in step 440 of Fig. 4 of Salmonsens indicates that a seek operation is performed. Salmonsens inherently sets the reading parameters at an optimum state because Salmonsens's goal is to correctly and optimally adjust the recording power for the subsequent recordings.

Accordingly, claims 2, 3, 5, 10, 11 and 13 are not patentable over Salmonsens.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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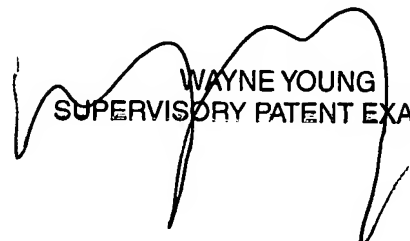
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lixi Chow whose telephone number is 571-272-7571. The examiner can normally be reached on Mon-Fri, 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC 9/17/07

  
WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER